

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-2 are pending in the present application. Claims 1 and 2 are amended; and Claims 3-4 are canceled without prejudice or disclaimer by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the Office Action, Claims 1 and 3 are rejected under 35 U.S.C. § 102(e) as anticipated by Park et al. (U.S. Pub. 2004/0008646, herein Park); and Claims 2 and 4 are rejected under 35 U.S.C. § 103(a) as unpatentable over by Park in view of Kim et al. (U.S. Pub. 2003/0119452, herein Kim).

In response to the above noted rejections under 35 U.S.C. §§ 102 and 103 Applicants respectfully submit that amended Claims 1 and 2 recite novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1 is amended to recite, in part, a radio communications system for transmitting same data from an upper node to a plurality of cells via a plurality of base stations, and performing a soft combining or a selective combining on the same data received by a mobile station, the radio communications system comprising:

an upper node synchronization controlling unit, at the upper node, configured to control synchronization processing on transmission timing of the same data among the plurality base stations based on a transmission delay time of a downlink between the upper node and the plurality of base stations; and

a base station synchronization controlling unit, at each of the plurality of base stations, configured to control synchronization processing on transmission timing of the same information among the plurality of base stations based on a transmission delay time of a downlink between each of the plurality of cells, wherein

¹ e.g., specification, at least at Figs. 5-6C and p. 10, l. 3 – p. 13, l. 21.

the upper node synchronization controlling unit is configured to control the synchronization processing on transmission timing ***by a second accuracy***,

the base station synchronization controlling unit is configured to control the synchronization processing on transmission timing ***by a first accuracy***, and

the first accuracy is higher than the second accuracy.

As disclosed in an exemplary embodiment at Figs. 5-6C and p. 10, l. 3 – p. 13, l. 21 of the originally filed disclosure, the accuracy of synchronization processing at each of the base stations is higher than the accuracy of synchronization processing at an upper node (e.g. radio network controller or core network apparatus).

Park, the primary reference, describes a soft handover method for multimedia broadcast/multicast service in a CDMA communication system. An object of Park is that a mobile station receives MBMS data from a plurality of base stations by a minimum time difference to facilitate a handoff operation. As described at [0013] and [0074] of Park, this is accomplished by performing synchronization amongst the base stations. More particularly, [0087] and [0093-0096] of Park describe that the difference between a transmission time point of a first NodeB and a transmission point of a second NodeB (UE_SFN observed time difference) is reported by the mobile station (UE) to the radio network controller (RNC) when the UE performs a handoff between the first NodeB and the second NodeB. [0103-0105] of Park then describes that the RNC determines an MBMS offset regarding the second NodeB with reference to the first NodeB. The RNC then notifies the UE and NodeB of the MBMS offset to facilitate the combining of signals at the UE, as described at [0112-0113].

Therefore, Park does appear to describe a process of synchronizing between base stations (NodeBs) for purposes of combining MBMS data at the UE, but fails to teach or suggest that an upper node (e.g. radio network controller or core network apparatus) synchronization controlling unit controls the synchronization processing on transmission timing ***by a second accuracy***, and the base station (NodeB) synchronization controlling unit

controls the synchronization processing on transmission timing ***by a first accuracy***, with ***the first accuracy being higher than the second accuracy***. Particularly, Park fails to disclose a difference in the accuracy of synchronization timing at the RNC and the NodeBs, whatsoever, much less that the accuracy at the NodeB is greater than the accuracy at the RNC (e.g. upper node), as claimed.

Moreover, Kim, the secondary reference, is merely relied upon for the feature of managing cells using a base station and a radio network controller, and fails to remedy the above noted deficiencies of Park.

Therefore, Park and Kim, neither alone, nor in combination, teach or suggest a radio communication system in which an “upper node synchronization controlling unit is configured to control the synchronization processing on transmission timing ***by a second accuracy***”, a “base station synchronization controlling unit is configured to control the synchronization processing on transmission timing ***by a first accuracy***”, and “***the first accuracy is higher than the second accuracy***”, as recited in amended independent Claim 1.

Similarly, neither Park nor Kim teach or suggest that “the upper node synchronization controlling unit is configured to control the synchronization processing on transmission timing by ***a second cycle***”, “the base station synchronization controlling unit is configured to control the synchronization processing on transmission timing by ***a first cycle***” and “***the first cycle is shorter than second cycle***”, as required by amended dependent Claim 2.

Accordingly, Applicants respectfully request that the rejection of Claims 1-2 under 35 U.S.C. §§ 102 and 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-2 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for allowance and an early and favorable reconsideration of the application is therefore requested.

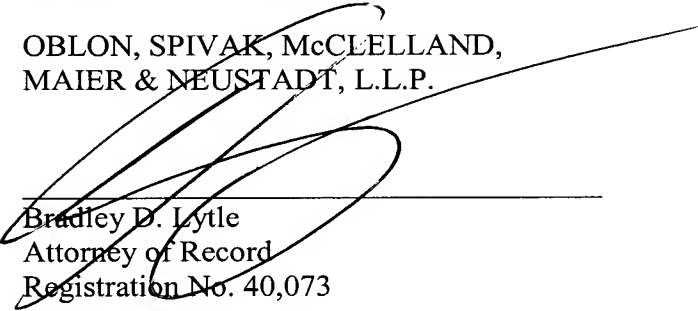
Respectfully submitted,

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